

EnviroAnalysis

Practical Methods for Environmental Analysis

Edited by Ray Clement and Robert Burk

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The Determination of ^{137}Cs in Venezuelan Vegetation	49
<i>J.J. LaBrecque and P.A. Rosales</i>	
✓ The Development of Protocols for the Appraisal of Survey and Experimental Events.....	^{AH18} 53
in a Contaminant Information System	
<i>Thomas M. Fyles, Blair A. King, Mark P. Pawluk, Terry Sowden, and Paul R. West</i>	
Actinide Analyses of Low-Level Radioactive Waste Leachates.....	57
<i>M.K. Haas, E.L. Cooper, and F. Caron</i>	
Measurement of the Carbonate Radical in Sunlit Field Waters	61
<i>Scott A. Mabury, Jiping Huang, and Donald G. Crosby</i>	
A Method for the Simultaneous Determination of Both Volatile and Semi-volatile.....	^{AH10} 65
Contaminants in Water by a Single Solid-phase Microextraction	
<i>B. Denis Page and Gladys M. Lacroix</i>	
Isomer Specific Detection of Parent, Methyl-, Hydroxy-, Amino- and Nitro-.....	^{AH1E} 69
Substituted Polycyclic Aromatic Compounds by Means of High-Resolution	
Low Temperature Luminescence Spectroscopy	
<i>Igor Kozin, Cees Gooijer, Nel H. Velthorst, Jocelyne Hellou, and Vlado Zitco</i>	
Extraction of Styrene from Polystyrene Using Supercritical CO_2 and C_2H_4	73
<i>M.L. O'Neill, P. Kruus, R.C. Burk, and Y.P. Handa</i>	
Anomalous Recoveries of Semivolatile Organic Compounds from MM5 Train	^{AH1F} 77
<i>Liang K. Tan and Albert J. Liem</i>	
Mutatox™ Genotoxicity Test Response with Benzo(a)pyrene and Other Polycyclic.....	^{AH1G} 83
Aromatic Hydrocarbons (PAHs) is Determined by the Aqueous Solubility	
of the Test Compounds	
<i>Hans J.C. Klamer, Leen A. Villerius, and Antoon Opperhuizen</i>	
Total Unsaturation of Plasma and Cell Membrane Lipids as a New Biochemical.....	87
Test of Ionizing Radiation Aftereffect	
<i>Tatyana I. Poznyak, Elena Kiseleva, and Vladimir Znamenskii</i>	
Determination of Phosphinothricin Acetyltransferase in Genetically Transformed.....	91
Canola Seed by a Two-Antibody Sandwich Enzyme Immunoassay	
<i>Brigitte Bauer-Weston, Raymond J.A. Deschamps, Bing Dang, and Roy Greenhalgh</i>	
Development and Applications of a Multi-bed Adsorbent Cartridge Sampling,	^{AH1H} 95
Thermal Desorption/Gas Chromatograph/Mass Spectrometry System for	
Airborne Volatile Organic Compounds Analysis	
<i>M. Sage, P. Hubber, O. Ting, R. Luniewski, L. Au, D. Toner, and P. Yang</i>	

Gas Chromatography/Isotope Dilution Mass Spectrometry Analysis of Airborne Benzo[a]pyrene Using ¹³ C-Labelled Benzo[a]pyrene and a Low Resolution Mass Spectrometer - Method Development and Evaluation <i>L. Au, B. Kanabe, R. Luniewski, L. Nasri, P. Hubber, D. Toner, and P. Yang</i>	AHJD	207
Total Oil Analysis Methods: Characterization, Differentiation, and Source-Identification of Oils Using GC/MS and GC/FID <i>Zhendi Wang and Merv Fingas</i>	AHJE	211
The Application of Ion-Spray Mass Spectrometry for the Detection of Pesticides in Water <i>J.C. Marr and J.B. King</i>	AHJF	217
Analysis of Inorganic and Small Organic Ions in the Environment Using Capillary Ion Analysis <i>Joseph P. Romano, Jim Krol, Gary J. Fallick, and Mark Benvenuti</i>	AHJG	221
Analytical Problems of Environmental Sample Streams and the Role of Capillary Electrophoresis <i>William C. Brumley, W.H. Matchett, W. Winnik, A.H. Grange, V. Kelliher, T. Moy, and E. La Torre</i>	AHJH	223
Application of Capillary Electrophoresis in Atmospheric Aerosol Analysis <i>Ewa Dabek-Zlotorzynska</i>	AHJI	225
Capillary Electrophoresis as Analytical Technique for the Determination of Quaternary Ammonium Herbicides <i>M.T. Galceran, M.C. Carneiro, and L. Puignou</i>	AHJJ	227
Analysis of the Transformation of Nitroaromatic Compounds in Waste Water by Bacteria Using Micellar Electrokinetic Capillary Chromatography <i>Teresa M. Chow, Brad D. Daniels, and Jianhui Liu</i>	AHJK	231
Analysis of Fluoride and Phosphate by Capillary Electrophoresis: From "Simple" Salt Systems to Complex Environmental Matrices <i>Marc A.G.T. van den Hoop and Hans J. van Staden</i>		235
Characterization of Humic Substances Using Capillary Electrophoresis with On-line UV-and LIF-detection <i>Maria Nordén, Ewa Dabek-Zlotorzynska</i>		239
Capillary Electrophoresis of Mercury Species with Amperometric Detection for Environmental Analysis <i>E.P.C. Lai, Sebastian Kowalski and E. Dabek-Zlotorzynska</i>	AHJL	243
Migration Behavior and Separation of Trichlorophenols by Capillary Zone Electrophoresis <i>Ching-Erh Lin, Chung-Chuan Hsueh, Wei-Chen Lin and Chia-Chieh Chang</i>	AHJM	247

Application of a Performance-Based Analytical Method to Contract Analysis	AHKB	303	✓
<i>André Fouquet</i>			
Cyclodextrin Modified Capillary Electrophoresis for the Analysis of Polycyclic Aromatic Hydrocarbons	AHKF	307	✓
<i>R. Stephen Brown, John H.T. Lueng, Oliver N.J. Szolar, Annamaria Halasz, and Jalal Hawari</i>			
Comprehensive Analysis of Organic Compounds in the Sydney Tar Ponds	AHKG	309	✓
<i>G.M. Charbonneau and A.J. Britten</i>			
Polychlorinated Naphthalenes: Synthesis and Characterization of Specific Congeners	AHKJ	319	✓
<i>P. Auger, M. Malaiyandi, and R.H. Wightman</i>			
An Inductively Coupled Plasma as a Programmable Reactor Applied to the Analysis of Environmental Microsamples	AHKI	321	✓
<i>V. Karanassios</i>			
Distributed Classrooms for Distance Training and Re-Training	AHKK	325	✓
<i>V. Karanassios</i>			
Technology for Fabrication of Micro-Structures for Environmental Analysis		329	
Micro-Instruments			
<i>J.T. Sharples, V. Karanassios, and A. Nathan</i>			
Performance-Based Methods	AHKL	333	✓
<i>David W. Boomer</i>			
Environment Canada's Approach to Performance Based Methods	AHKM	345	✓
<i>Richard Turle</i>			
Performance Based Methods: Benefits, Dangers and Implications	AHKN	351	✓
<i>J.R. Johnston</i>			
A Performance Based Methods System for Environmental Laboratories in Ontario	AHKO	355	✓
<i>George Crawford</i>			
Laboratory Testing vs Process Control	AHKP	361	✓
<i>Joe Furgal</i>			
PBMS - A Perspective from the Private Laboratory Sector	AHKQ	365	✓
<i>M. Glenys Foster Roberts</i>			
Ten Years Experience of Accreditation Over the Performance Based Methods	AHKKR	369	✓
<i>François Messier</i>			

A Performance Based Methods System for Environmental Laboratories in Ontario

George Crawford

Ontario Ministry of Environment & Energy, Laboratory services Branch, 125 Resources Road, Etobicoke, Ontario, M9P 3V6

Introduction

The Laboratory Services Branch (LSB) of the Ministry of Environment & Energy (MOEE) acts as a provincial resource, providing guidance to public and private stakeholders in matters of quality management, methods development and technology transfer. The LSB is a strong proponent for the cooperative development of a formal performance based methods system (PBMS) for application to environmental programs and for use under legislation. The development of a PBMS is seen by LSB as a logical next step in its role as a Reference Centre and in support of its approach to environmental analysis, founded on adherence to sound principles and quality management practices rather than prescriptive methodology. The LSB "principles and practices" approach has been evolving since the inception of the Municipal and Industrial Strategy for Abatement (MISA) program of the 1980's. A PBMS offers an opportunity for the MOEE to strengthen and improve environmental laboratory data quality based upon the ground work and directions laid by MISA as well as the flexibility to laboratories in how their analysis is performed. The LSB is actively involved with stakeholders to develop a consensus on the definition of and approaches to a credible PBMS and to attempt a pilot application of these outcomes within emerging environmental protection guidelines.

A Definition

Specific environmental laboratory data complies with required performance specifications, through application of rugged, high quality methods based upon sound science, accommodating advances in technology and cost effectiveness.

A Performance Based Methods System for Environmental Laboratories in Ontario

George Crawford
Laboratory Services Branch

1
26/05/96

A Definition

- Specific environmental laboratory data complies with required performance specifications, through application of rugged, high quality methods based upon sound science, accommodating advances in technology and cost effectiveness.



2
26/05/96

Vision Statement

- Use the laboratory method of your choice BUT..... be sure it is:
 - » documented
 - » well controlled and assured
 - » able to consistently meet
 - performance criteria
 - customers' quality needs

3

Goal and Objectives

- Build upon MOEE “principles” approach, develop, implement and effectively manage a PBMs for specific environmental programs
 - » establish stakeholder forum
 - » derive consensus approach
 - definitions, characteristics, requirements, issue resolution
 - » develop PBM characteristics/ specifications case study
 - customer, program, DQOs, method content, performance indicators
 - » pilot implementation
 - » review, refine, continue

4

Today's Situation at MOEE

- **MOEE/ LSB Reference Centre**
 - » methods, QM practices & protocols
- **Aggregate data**
 - » MOEE/LSB, NWRI, others
- **Regulation review (80 pieces)**
 - » performance based regulations
 - » performance based methods
- **New guidelines development**
 - » site decommissioning
 - » compost

5

25/03/04

How Did We Get Here?

- **Prescriptive \Rightarrow principles \Rightarrow PBMS**
 - » MISA principles and protocols
 - » customers and DQOs
 - » contracting out and divestment
 - » responsibility of suppliers
 - responsibility/ authority/ shared accountability
 - » technology and cost/ global market
 - » MOEE consultation
 - stakeholder responsibility/ interest/ diversity

6

25/03/04

Next Steps

- Performance criteria
 - » MOEE/ LSB, Stakeholders
 - » ILS, PEP
- Reference Method(s)
 - » MOEE/LSB, Stakeholders
 - » Standard Methods, ASTM, NIST, IUPAC
- Customer Communications
 - » workshops, conferences, EBR registry

7

25-03-04

Recommendation

- Develop a PBMS application:
 - » stakeholders
 - » inventory ILS/ PEP data, SRMs/ CRMs
 - » model program
- Anticipated outcomes:
 - » method specifications guide
 - template
 - performance materials/ criteria
 - » experience

8

25-03-04

Reality Check

- Have it your way, BUT.....
- Do it right the first time, all the time and always to the customers' expectation
- Apply methods that perform
- A PBMS represents a win/win/win in appropriate application
 - » laboratory customer/ public
 - » regulator
 - » practising laboratory

9
26/02/04



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